

Notice of Allowability

Application No.

10/009,011

Examiner

Zachariah Lucas

Applicant(s)

NAM ET AL.

Art Unit

1648

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the amendment of August 17, 2005.
2. ☒ The allowed claim(s) is/are 1-4,6,9,10 and 14-21.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

DETAILED ACTION

1. In the prior action, mailed on February 17, 2005, claims 1-21 were pending. In that action, claims 1-4, 6, 9, 10, 14-19, and 21 were rejected; claim 20 was objected to; and claims 5, 7, 8, and 11-13 withdrawn as to non-elected inventions. In the Response filed on August 17, 2005, the Applicant cancelled claims 5, 7, 8, and 11-13; and amended claims 1-4, 6, 9, 14-19, and 21.

Claims 1-4, 6, 9, 10, and 14-21 are pending. In view of the amendments and arguments presented in the Response and in the accompanying Declaration of Suzanne U. Emerson, the rejections to these claims are withdrawn, and the pending claims are allows.

Claim Objections

2. **(Prior Objection- Withdrawn)** Claim 1 was objected to because of the following informalities: the claim refers to the Bovine Viral Diarrhea Virus by its acronym (BVDV) without first identifying the virus by its complete name. In view of the amendment of the claims, the objection is withdrawn.

3. **(Prior Objection- Withdrawn)** Claim 20 is objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim may not depend directly or indirectly from another multiple dependant claims. See MPEP § 608.01(n). Claim 20 depended indirectly from multiple dependant claim 9. In view of the amendment of claim 9 such that it is no longer a multiple dependent claim, the objection to claim 20 is withdrawn.

Claim Rejections - 35 USC § 101

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4. **(Prior Rejection- Withdrawn)** Claims 14, 15, 18, and 19 were rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. In view of the amendments of the claims to read on “isolated” cells, the rejection is withdrawn.

Claim Rejections - 35 USC § 112

5. **(Prior Rejection- Withdrawn)** Claims 1- 4, 6, 9, 10, 14-19, and 21 were rejected under 35 U.S.C. 112, second paragraph, as being indefinite because claim 1 appeared to require that the entire BVDV structural region be replaced with the entire structural region of HCV, whereas claim 2, which purported to further limit claim 1, indicated that only a single gene of the BVDV structural region is replaced with a corresponding gene of the HCV genome. It was therefore unclear whether the Applicant intended that claim 1 require the replacement of the entire BVDV structural region, or if the Applicant intended that the claim read on any BVDV virus wherein either the entire structural region or a single structural gene of the BVDV structural region be replaced by a corresponding portion of the HCV genome. In view of the amendment of the claims, the rejection is withdrawn.

6. **(Prior Rejection- Withdrawn)** Claims 16-19 were rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for chimeric virus produced by a host cell infected by BVDV, and transfected by the DNA construct of claim 9 or 10, does not reasonably provide enablement for chimeric virus produced by any cell transfected with the indicated DNA constructs. In view of the amendment of the claims, the rejection is withdrawn.

Claim Rejections - 35 USC § 103

7. **(Prior Rejection- Withdrawn)** Claims 1-4, 6, 9, 10, 14, 15, and 21 were rejected under 35 U.S.C. 103(a) as being unpatentable over the teachings of Vassilev et al. (J Virol 71: 471-78)

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in view of the teachings of Kashiwakuma et al. (J Immunol Methods 190: 79-89) and Maertens et al. (WO 96/04385). In view of Applicant's arguments, the rejection is withdrawn.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Zachariah Lucas whose telephone number is 571-272-0905. The examiner can normally be reached on Monday-Friday, 8 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Housel can be reached on 571-272-0902. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Z. Lucas
Patent Examiner


9/6/05
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